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**From:** Martin Willinger [martin.willinger@stacktest.onmicrosoft.com]  
**Sent:** 5/28/2019 7:35:29 PM  
**To:** APCD Compliance Testing - CDPHE, CDPHE [cdphe\_apcd\_compliancetesting@state.co.us]  
**CC:** North, Alexis [North.Alexis@epa.gov]; rgoetz@outriggerenergy.com; Chris DiMarco [cdimarco@ltenv.com]  
**Subject:** RE: 19-0812D - Makena Gas Plant 3 Engines NOx CO VOC HCHO - 1 Heater NOx CO SSTP  
**Attachments:** ATT00001.txt; 19-0812D - Makena Gas Plant 3 Engines NOx CO VOC HCHO - 1 Heater NOx CO SSTP.rev1.pdf

Alexander,

Attached is a revised test plan for testing at the Makena Gas Plant. Test plan has been updated with the correct emission limits for the engines in Table 1; additional operating parameters requested by CDPHE in Section 3; clarification that spot checks are to only be conducted during the low load operating condition in Section 3; and Appendix E project correspondence which has the email from CDPHE regarding the test plan revisions. Testing is proposed for June 12-14. Let me know if you have any further comments on the test plan. Thanks, Marty

**From:** alex.scherer@state.co.us <alex.scherer@state.co.us> **On Behalf Of** APCD Compliance Testing - CDPHE, CDPHE  
**Sent:** Monday, May 20, 2019 4:08 PM  
**To:** Martin Willinger <martin.willinger@stacktest.onmicrosoft.com>  
**Cc:** North, Alexis <North.Alexis@epa.gov>; rgoetz@outriggerenergy.com; Chris DiMarco <cdimarco@ltenv.com>  
**Subject:** Re: 19-0812D - Makena Gas Plant 3 Engines NOx CO VOC HCHO - 1 Heater NOx CO SSTP

Mr. Willinger,

In order for the Division to approve the provided protocol please provide answers to the following questions:

1. According to the APENs submitted for AIRS Points 007, 008 and 010 the RICE should have emission factors of .4 g/hp-hr of NOx and .7 g/hp-hr of CO. It is stated in the protocol that Outrigger and Alliance will be testing against the emission factors of 1 g/hp-hr of NOx and 2 g/hp-hr of CO. Please explain why the company is testing against those emission factors and not the ones established in the submitted APENs.
2. Please confirm that you will conduct 3 one hour high load tests for each engine and that the spot check proposal is only to avoid conducting three low load tests for each engine.
3. For the amine reboiler, the Division will expect that fuel consumption, amine unit throughput, and amine circulation rate will be recorded during the test and provided with the test results. Please let us know if you are unable to record these parameters.

Please provide answers to the above questions in order to have your protocol approved. If you have any questions please let me know. Thank you.

Alexander Scherer  
Environmental Protection Specialist  
Oil & Gas Team



**COLORADO**

Air Pollution Control Division

Department of Public Health & Environment

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"Are you curious about ground-level ozone in Colorado? Visit our [ozone webpage](#) to learn more."

On Mon, May 13, 2019 at 2:05 PM Martin Willinger <[martin.willinger@stacktest.onmicrosoft.com](mailto:martin.willinger@stacktest.onmicrosoft.com)> wrote:

May 13, 2019

USEPA Region 8

1595 Wynkoop Street

NC-8ENF-AT

Denver, Colorado 80202

Office of Enforcement, Compliance & Environmental Justice

Alexis North,

303-312-7005

CDPHE, APCD-SS-B1

4300 Cherry Creek Drive South

Denver, Colorado 80246

**RE: Makena Gas Plant – Reboiler & Engines (x3) Performance Test**

**AST Project No. 2019-0812D**

Alliance Source Testing, LLC (AST) is pleased to submit the attached source test plan on behalf of Outrigger DJ Operating LLC for compliance testing at the Makena Gas Plant located in Weld County, Colorado. Testing is proposed for June 12-14, 2019.

ED\_004016P\_00012007-00002

Testing will include determining the emission rates of nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), volatile organic compounds (VOC) and formaldehyde (HCHO) from three (3) Waukesha L-7044GSI natural gas fired compressor engines (AIRS 007, 008 & 010) and NO<sub>x</sub> and CO from one (1) natural gas fired amine reboiler (AIRS 004).

The performance test on the three (3) Waukesha L-7044GSI engines (AIRS 007, 008 & 010) will be used to demonstrate initial compliance with 40 CFR Part 60, Subpart JJJJ and Colorado Department of Public Health and Environment (CDPHE) General Construction Permit No. GP02 and the performance test on the amine reboiler (AIRS 004) will be used to demonstrate compliance with CDPHE Air Quality Construction Permit 18WE0503, Issuance 1 and 40 CFR Part 60, Subpart DDDDD.

Feel free to call or email with any comments or questions regarding this test plan.

CCed - Rich Goetz (Outrigger DJ Operating LLC), Chris DiMarco (LT Environmental, Inc.)

Thanks,

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**Marty Willinger**

Direct: 720-457-9521 // Mobile: 502-609-7607

5530 Marshall Street // Arvada, Colorado 80002

